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Quad Knopf

August 10, 2011

Received & Inspected

AUG 17 2011

FCC Mail Room

Marlene H. Dortch, Secretary  
Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554

Dear Ms. Dortch:

As a licensed Professional Land Surveyor and Engineer in California, I am writing to express my concerns regarding the recent conditional approval granted to LightSquared, LLC by the Federal Communications Commission (FCC) to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders Garmin and Trimble Navigation demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions have all expressed serious reservations related to LightSquared, LLC's plan to build 40,000 ground stations in the U.S. This network will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Additionally, each mobile phone using LightSquared's wireless service could potentially become a portable GPS jamming device to receivers in its immediate vicinity.

Tens of thousands of high-precision and personal GPS devices- used by Surveyors, Engineers, farmers, and other geomatics professionals, as well as everyday consumers- would be affected. In California alone, over 72,000 licensed Professionals Land Surveyors and Engineers use GPS equipment in their everyday field work. All of the efficiencies and savings created by GPS technology are in jeopardy should this plan proceed.

The FCC and the National Telecommunications and Information Administration (NTIA) must make clear and ensure that LightSquared's license modification is contingent upon unequivocal results from a mandated study that demonstrate no interference with GPS. The study must be comprehensive, objective, and based on correct assumptions about existing GPS uses rather than theoretical possibilities. If there is conflicting evidence, doubts must be resolved against the LightSquared terrestrial system.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for California, but for the United States as a whole. I urge the FCC to reject LightSquared's request, and to rescind the conditional waiver immediately.

Best Regards,

Michael D. Knopf, PLS, PE  
President

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